# POWER QUALITY IMPROVEMENT WITH FUZZY LOGIC BASED IPQC OF MICRO GRID FOR HYBRID RENEWABLE APPLICATIONS

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ABSTRACT: This paper presents a fuzzy logic controller based on integrated power quality controller (IPQC) for micro-grid is used to mitigate power quality problems when it is applied for PV/Wind renewable energy system. The unusual requirements of micro grid power quality, such as the harmonic high penetration, frequent voltage fluctuation and over current phenomenon, when wind energy is connected to the grid voltage sag, swells, harmonics, flicker etc and bidirectional power flow and small capacity. The IPQC is an effective custom power solution, which consists of two back to back connect IGBT based voltage sourced bi-directional converters with a common DC bus to mitigate power quality problems. A hybrid energy system, or hybrid power, usually consists of two or more renewable energy sources used together to provide increased system efficiency as well as greater balance in energy supply.

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# GENARATION AND CONTROL OF POWER IN ISLANDED MICRO GRID USING RENEWABLE ENERGY SOURCES

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ABSTRACT: This paper presents a brand new strategy to regulate the generated power from energy sources existing in autonomous and isolated Micro grids (MG). During this specific study, the power system consists of a power convertor supplied by a energy storage system (ESS), that is employed to form the ac grid GFC (grid former converter), associate energy source supported a wind generation with its turbine, photovoltaic (PV) respective Power electronic converter GSC(grid supplier converter), and therefore the power consumers. The main objective of this proposed strategy is to regulate the state of charge of the battery bank ESS, wind turbine (WT), photovoltaic (PV) generation and loads, a coordinated active power regulation is needed to ensure efficient utilization of renewable energy, whereas keeping the ESS from overcharge and over discharge conditions. By limiting the voltage on its terminals by controlling the power generated by the energy sources.

This is often done without using dump loads or any physical communication among the power electronic converters or the individual energy source controllers. The electrical frequency of the micro grid is employed to inform the power sources and their respective converters regarding the quantity of indicate the practicability of the propose control strategy.

Key words: Battery banks, power control, renewable energy sources (RES's), isolated micro grids power that they need to generate in order to maintain the battery-bank charging voltage below or equal its maximum allowable limit.

### ELECTRICAL MEASUREMENT OF MODEL DIGITAL ENERGY METER

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Abstract: Here a lot of custom's are used electrical energy but not pay the bills in time. So here we avoid this problem by using this project. We can measure the power by each load and take the information through the mobile by using GSM module. After the taking alert from the situation the consumer not respond for emergency alert we can cut –off the supply to the consumer by automatically.

**KEY POINTS**: Leaf Spring, Pro-e, Ansys-13.

# IMPLEMENTATION of DATA LOGGER INTEGRATED with TRANSMITTER and SENSOR

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ABSTRACT: The Data logger integrated with transmitter and sensor used in AWS (Automatic weather station) products .The data-logger is the heart of the Automatic Weather Station. In high quality weather stations, the data-logger may be designed by the supplier to be the perfect solution for a particular meteorological client. Indeed, usually data-loggers found in the market don't fit the requirement in terms of power

### VISION BASED CLASSROOM ATTENDANCE SYSTEM USING OPENCV AND RASPBERRY-PI

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ABSTRACT: Attendance for the students is an important task in class. Thus the drawbacks arise as it consumes time, needs manual work and the most important, information or the attendance can be manipulated. Also, there are chances of students not responding to their attendance and later claiming for the attendance. So, we proposed an automation of attendance system by using face recognition. The primary identification is Face for any human. This paper describes the method of detecting and recognizing the face in real-time by utilizing Raspberry Pi. This project describes an efficient algorithm using open source image processing framework known as Open CV. Our approach has five modules - Face Detection, Face Preprocessing, Face Training, Face Recognition and Attendance Database. The face database is collected to recognize the faces of the students. Initially, The system is trained with the student's faces which is collectively called student database. This project can be used for many other applications where face recognition can be used for authentication.

Index Terms: Raspberry Pi, Detection, Preprocessing, Training, Database, Recognition.

### CREATING WORK CULTURE FOR TALENT MANAGEMENT

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Abstract: Organisations know that they must have the best talent in order to succeed in the hypercompetitive and increasingly complex global economy. Talent management, the management of individuals and workforces towards achieving improved performance, is among the most critical components to the success. Creating and maintaining a talent-rich culture is especially important today because talent is difficult to find. According to Mc Kinsey & Company's "The War for Talent", the demand for highly skilled people outstrips supply. This is a challenge so many organisations are confronted with today, and finding the delicate balance between producing results and retaining and engaging employees can be difficult. This conceptual paper presents an overview of building a right culture so as to attract right talent and retain them in the organisations.

Keywords: Talent management, Performance, The War for Talent, Culture, Retaining.

### DESIGN AND ANALYSIS OF FLOW IN A DE-LAVAL NOZZLE USING COMPUTATIONAL FLUID DYNAMICS

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Abstract — de Laval nozzles are mechanical devices which are used to convert the thermal and pressure energy into useful kinetic energy. The values of temperature, pressure and velocity should be available at every section of the nozzle so as to design the nozzle shape, insulation and cooling arrangements. This paper aims at providing theoretical formulae to calculate the above. The validation of these